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2003 Montana Statewide Test Results

Background

In 2003, all Montana students in grades 4, 8, and 11 participated in the second statewide norm-referenced standardized tests, the ITBS and the ITED, Form A. Montana students were tested in Reading, Language Arts, Mathematics, Social Studies, and Science.

Montana standards include basic knowledge, application of basic and specific knowledge, and process skills. The ITBS and ITED are designed to measure basic knowledge and some application skills. Montana students do very well on the tests, scoring above the national norm group in all grades and subjects.

The results of the tests give a picture of aspects of student achievement, and it is recognized that they do not measure all Montana standards or district curricula. This was never their intention, and that is why these tests comprise Phase 1 of the Montana Comprehensive Assessment System (MontCAS). Indeed, the Board of Public Education and the Office of Public Instruction have planned for Phases 2 and beyond to include multiple measures, currently in the planning process.

Therefore, presently at the state level, there is one measure of student achievement for all students, and it is important that the data are used constructively for what they are intended, as measures of achievement and comparisons with a national norm group.

Guide to the Reports

The 2003 Montana Statewide Test Results includes this introduction and five subject reports: reading, language arts, mathematics, social studies, and science.

Each report includes

1. Introduction to the subject with general tables and charts
2. Charts for each grade level within the subject are disaggregated within district size categories:
 - Horizontal charts with explanatory text following each
 - Charts and tables are numbered to reflect the grade, the number of the chart, and the subject. Examples:
 - R: 4, 8, 11** = Reading for all three grades
 - R 4.1** = Reading, grade 4, chart 1
 - LA 8.3** = Language Arts, grade 8, chart 3
 - M 11.5** = Mathematics, grade 11, chart 5
 - SS** = Social Studies; **SC** = Science
 - Arranged from the bottom of the chart up beginning with the state and going up the left side of the chart in the order of district-size category, small to large.
- ☐ The district size categories and the number of students tested in that district size category are labeled.
- ☐ The percents along the bottom of the charts are the National Percentile Ranks (NPRs).

Types of information used in the reports

1. Disaggregations--by whole state and by district size category
 - Results are reported for each of the following groups:
 - ☐ All students with number tested
 - ☐ School size category with number tested
 - ☐ Students without disabilities
 - ☐ Students with disabilities
 - ☐ Female students
 - ☐ Male students
 - ☐ Native American students *
 - ☐ White students *
 - ☐ Students with free/reduced lunch with number tested
 - ☐ Students with limited English proficiency (LEP)

***NOTE:** This report is limited to a comparison of Montana's Native American and White students. Full race/ethnicity disaggregations are available online.

2. School Size Categories—only applicable size categories will be included in specific charts.

Montana school districts are divided into categories according to the number of students. The total number of students tested in a small size district category may be greater than the total number of students tested in a larger size category because Montana has many small sized districts. The following are the size categories:

- ☐ 1E = Elementary, more than 2500 students
- ☐ 1H = High School, more than 1250 students
- ☐ 1K = K-12, more than 399 students
- ☐ 2E = Elementary, 851-2500 students
- ☐ 2H = High School, 401 to 1250 students
- ☐ 2K = K-12, 399 or fewer students
- ☐ 3E = Elementary, 401-850 students
- ☐ 3H = High School, 201-400 students
- ☐ 4E = Elementary, 151-400 students
- ☐ 4H = High School, 76-200 students
- ☐ 5E = Elementary, 41-150 students
- ☐ 5H = High School, 75 or fewer students
- ☐ 6E = Elementary, 40 or fewer students

3. Scores Reported

National Percentile Rank (NPR) compares Montana students with students in the national norm group. The average NPR for Montana 4th grade reading students is 66, meaning that Montana 4th grade students scored the same as or better than 66% of the students in the national norm group. All NPRs in this report are averages (An NPR average is calculated statistically and not by the simple mathematical process).

[Charts in each grade and subject section show the NPR.]

National Stanines (NS), derived from the National Percentile Ranks, are organized into the following Montana performance categories:

Novice	Stanines 1 – 3
Nearing Proficiency	Stanine 4
Proficient	Stanines 5-7
Advanced	Stanines 8-9

[The Montana performance category data is shown statewide by grade, subject area, and disaggregation in each subject area introduction.]

Customized Skills Reports, reports aligned to Montana standards, provide aggregated data and are specific to Montana standards. Customized Skills Reports are compiled by Riverside Publishing Company for the state and districts.

Information from these reports includes:

1. The number of items which measure a specific Montana standard and
2. The average percent correct of the student group being reported

Other Related Measures, when appropriate, may include:

NAEP, National Assessment of Educational Progress

- ☐ NAEP tests a representative sample of students from each state in some subject areas and grades. The scores included in this report are from a representative sample of Montana students.
- ☐ NAEP scoring is on a 0-500 scale with four achievement levels:
 - Basic
 - Above Basic (does not indicate deficiency)
 - Proficient
 - Advanced
- ☐ Cut scores for the levels depend upon the grade and the subject. Instead of using cut scores, the NAEP data that are reported will include average scores for all students nationally, all White students nationally, all Native American students nationally, all Montana students, all White Montana students, and all Native American Montana students.
- ☐ In addition, the combined percentage of students scoring basic, proficient, or advanced is reported for the Montana White and Native American groups.

ACT Results—Graduating Class of 2003

- ☐ The ACT Assessment is a college qualifying exam scored on a scale of 1-36, with 36 being the highest possible score for each subject tested.
- ☐ Subjects tested:
 - English
 - Math
 - Reading
 - Science Reasoning
- ☐ Score results, according to ACT, mean:
 - 17 or higher: typical requirement for colleges and universities with liberal or open admissions policies.
 - 22 or higher: typical requirement for colleges or universities with selective admissions policies.
 - 27 or higher: typical requirement for admission to most highly selective colleges and universities.
- ☐ The average score for each of the subjects for the national group and Montana students taking the tests (all, white, and Native American) is included in this report in the specific subject section.

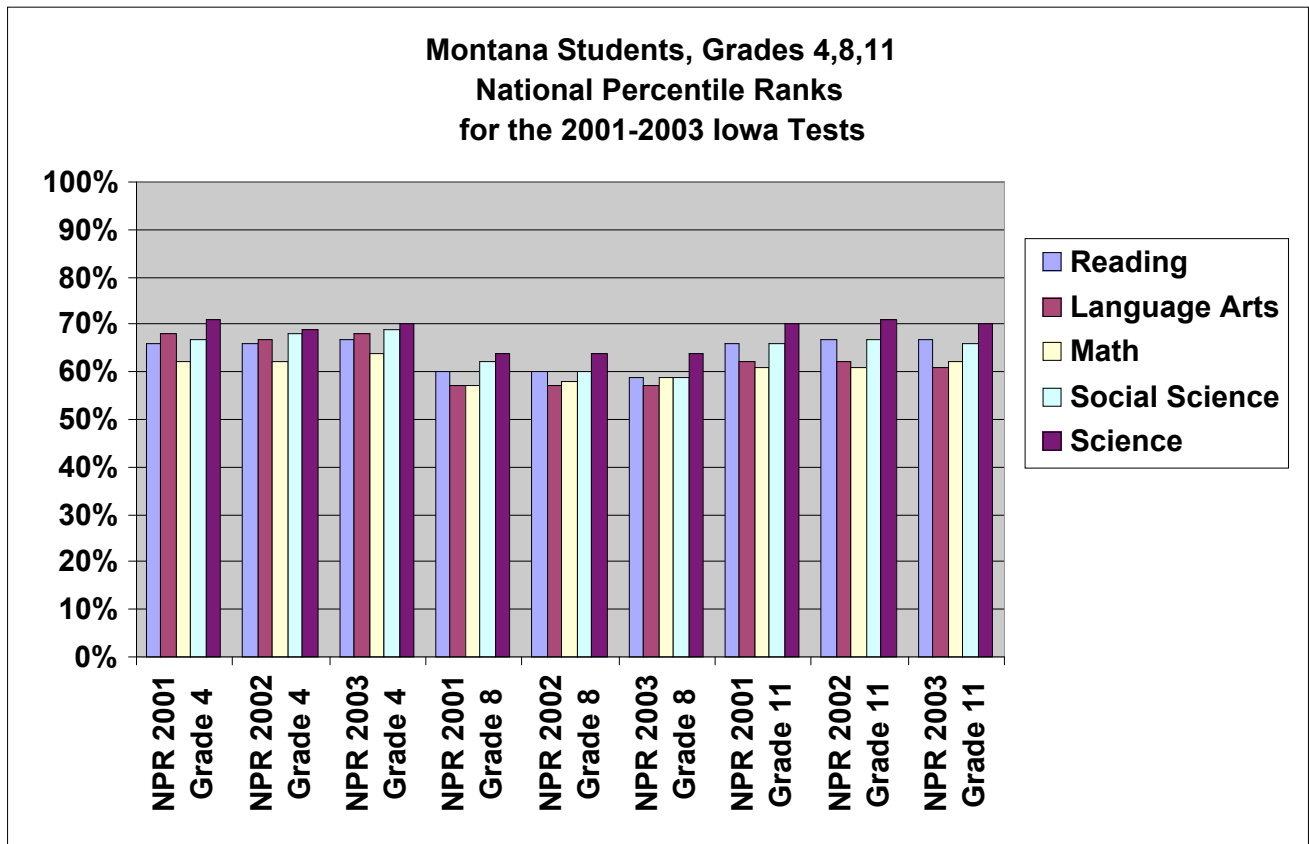
SAT Results-Graduating Class of 2003

- The SAT Assessment is a college qualifying exam scored on an 800 point scale for each of two subject areas, verbal and math.
- The average scores of students entering college in 2002 were verbal, 504 and math, 516.
- The average score for the subject areas for the national group and Montana students taking the tests (all, White, and Native American) is included in this report in the specific subject section.

Summary

Overall Results by Grade and Subject

The following chart displays the National Percentile Ranks for Montana students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, and 2003. It serves as an anchor for the charts that follow in the subject sections, which provide details according to disaggregations and size categories.



The following table displays the National Percentile Ranks for Montana students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, and 2003 and the change in scores between 2002 and 2003 in each grade, and subject.

	NPR 2001 Grade 4	NPR 2002 Grade 4	NPR 2003 Grade 4	Change	NPR 2001 Grade 8	NPR 2002 Grade 8	NPR 2003 Grade 8	Change	NPR 2001 Grade 11	NPR 2002 Grade 11	NPR 2003 Grade 11	Change
Reading	66%	66%	67%	+1%	60%	60%	59%	-1%	66%	67%	67%	NC
Language Arts	68%	67%	68%	+1%	57%	57%	57%	NC	62%	62%	61%	-1%
Math	62%	62%	64%	+2%	57%	58%	59%	+1%	61%	61%	62%	+1%
Social Studies	67%	68%	69%	+1%	62%	60%	59%	-1%	66%	67%	66%	-1%
Science	71%	69%	70%	+1%	64%	64%	64%	NC	70%	71%	70%	-1%

- Montana students in grade 4 continued to score over 60% in all subjects, and showed small gains in all subjects. The highest score, 70% was in Science; the lowest score, 64% was in Math.
- Montana students in grade 8 remained the same as in 2002 in Language Arts and Science, declined one percentage point in Reading and Social Studies, and increased by one percentage point in Math. The highest score, 64%, was in Science; the lowest score, 57%, was in Language Arts.
- Montana students in grade 11 continued to score over 60% in all subjects with no change in Reading, a one percentage point increase in Math, and a one percentage point decrease in Language Arts Social Studies, and Science. The highest score, 70%, was in Reading; the lowest score, 61%, was in Language Arts.

Alternate Assessment

Alternate assessment is a method of measuring the performance of students unable to meaningfully participate in the statewide norm-referenced test (Thurlow, Elliott & Ysseldyke, 1998). It is one of four test participation options available to ensure that all students in Montana are involved in statewide testing.

The Alternate Assessment Scale is a skill checklist derived from performance standards in Montana's Standards Framework, which includes reading, language arts, mathematics, social studies, and science.

The following table contains the number of students who participated in the alternate assessment scales by grade and subject with the percent of each group scoring in the Montana performance categories.

Grade	Subject	Number tested		Novice		Nearing Proficiency		Proficient		Advanced	
		02	03	02	03	02	03	02	03	02	03
4	Reading	162	179	67%	60%	25%	30%	6%	9%	2%	1%
4	Language Arts	141	138	78%	73%	19%	22%	3%	4%	0%	1%
4	Math	140	132	77%	73%	19%	23%	4%	2%	0%	1%
4	Social Studies	137	127	84%	82%	15%	13%	1%	6%	0%	0%
4	Science	137	124	81%	77%	14%	17%	4%	5%	1%	2%
8	Reading	147	126	73%	78%	20%	19%	5%	3%	2%	0%
8	Language Arts	127	116	72%	70%	24%	27%	2%	3%	2%	0%
8	Math	159	118	62%	64%	31%	32%	6%	4%	2%	0%
8	Social Studies	120	109	82%	83%	12%	15%	4%	3%	1%	0%
8	Science	117	104	77%	70%	18%	27%	4%	3%	1%	0%
11	Reading	83	118	82%	83%	14%	15%	2%	2%	1%	0%
11	Language Arts	77	116	56%	62%	35%	35%	8%	3%	1%	0%
11	Math	88	114	73%	69%	22%	28%	6%	2%	0%	1%
11	Social Studies	77	115	75%	80%	21%	15%	3%	5%	1%	0%
11	Science	77	110	81%	80%	16%	19%	4%	1%	0%	0%

Percent Tested

The following table contains the percent of students by grade and overall who were enrolled and tested in 2003.

Grade	Spring Enrollment	Number Tested	Percent Tested
4	10991	10825	98%
8	12198	11852	97%
11	11853	11192	94%

High and Low Scores by Grade, Subject, and Disaggregation

The following table displays the National Percentile Ranks (NPR) for Montana students in grades 4, 8, and 11 who took the Iowa Tests in 2001, 2002, and 2003. Subjects in which students in a grade and disaggregation scored high are shaded in gray. Subjects in which students in a grade and disaggregation scored low are in bold print and bordered with a broken line.

	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.	Read	LA	Math	Soc. St.	Sci.
Grade	4	4	4	4	4	8	8	8	8	8	11	11	11	11	11
All Students 01	66%	68%	62%	67%	71%	60%	57%	57%	62%	64%	66%	62%	61%	66%	70%
All Students 02	66%	67%	62%	68%	69%	60%	57%	58%	60%	64%	67%	62%	61%	67%	71%
All Students 03	67%	68%	64%	69%	70%	59%	57%	59%	59%	64%	67%	61%	62%	66%	70%
Students Without Disabilities 01	69%	71%	66%	70%	72%	64%	60%	60%	65%	67%	69%	64%	64%	69%	72%
Students Without Disabilities 02	69%	70%	65%	71%	71%	64%	61%	62%	63%	68%	70%	65%	64%	69%	73%
Students Without Disabilities 03	70%	71%	67%	71%	72%	63%	61%	63%	62%	67%	70%	64%	65%	69%	73%
Students With Disabilities 01	32%	33%	31%	41%	50%	25%	26%	25%	26%	36%	26%	27%	26%	32%	32%
Students With Disabilities 02	32%	31%	31%	42%	46%	25%	22%	23%	32%	34%	28%	28%	26%	32%	34%
Students With Disabilities 03	34%	35%	35%	46%	51%	25%	22%	24%	32%	35%	29%	28%	28%	32%	34%
Female Students 01	67%	72%	60%	66%	70%	60%	62%	58%	62%	65%	68%	69%	60%	69%	72%
Female Students 02	67%	71%	61%	67%	68%	62%	64%	59%	60%	66%	69%	69%	61%	69%	73%
Female Students 03	68%	72%	63%	69%	70%	57%	64%	60%	59%	66%	70%	69%	62%	69%	73%
Male Students 01	66%	64%	62%	70%	72%	60%	52%	57%	63%	63%	64%	55%	62%	64%	67%
Male Students 02	65%	63%	63%	69%	70%	59%	50%	57%	59%	63%	65%	55%	62%	65%	68%
Male Students 03	66%	63%	64%	70%	70%	62%	49%	58%	58%	62%	65%	54%	63%	63%	68%
Native American Students 01	44%	49%	40%	48%	50%	36%	41%	33%	35%	42%	41%	42%	41%	46%	51%
Native American Students 02	44%	48%	40%	48%	49%	35%	35%	32%	39%	41%	41%	43%	39%	46%	48%
Native American Students 03	44%	46%	41%	47%	48%	37%	38%	36%	41%	43%	40%	42%	40%	44%	46%
White Students 01	69%	70%	66%	71%	73%	64%	59%	60%	65%	67%	69%	63%	63%	68%	71%
White Students 02	69%	70%	65%	71%	72%	64%	60%	62%	63%	68%	70%	64%	63%	69%	72%
White Students 03	70%	70%	67%	72%	73%	63%	60%	63%	62%	67%	70%	64%	65%	68%	73%
Students on Free/Reduced Lunch 01	54%	57%	51%	57%	59%	47%	48%	45%	47%	53%	51%	49%	49%	54%	58%
Students on Free/Reduced Lunch 02	53%	55%	50%	57%	58%	47%	44%	45%	48%	53%	52%	49%	48%	54%	58%
Students on Free/Reduced Lunch 03	54%	56%	53%	58%	60%	46%	44%	45%	47%	52%	53%	50%	61%	54%	59%
Students with Limited English Proficiency 02*	27%	35%	29%	32%	35%	22%	27%	24%	30%	32%	32%	36%	34%	38%	40%
Students with Limited English Proficiency 03*	27%	31%	29%	30%	33%	21%	25%	21%	29%	29%	30%	35%	36%	38%	41%

NOTE: Data for LEP students was incomplete in 2001

The test results for 2003, the third year of the statewide norm-referenced test, can begin to be viewed as longitudinal data. However, the students tested in 2001 and 2002 are not the same students as those tested in 2003.

In addition, the number of the students tested affects the data: the larger the number, the more generalizable the data, and the smaller the number, the less generalizable the data because one or two students in a small group can dramatically impact the results. Therefore, comparing the different size districts continues to be problematic. However, looking at the data by size categories, one can see what may be stable across the state and what may not be.

As the charts and explanations are examined, it continues to be important to remember that these scores reflect one test, a test that best measures basic knowledge and some application of that basic knowledge, and one kind of test.